

What is claimed is:

1. A filter comprising:

a) a first, second and third dielectric layer, the dielectric layers stacked on each other
5 to form a multi-layered dielectric block;

b) the block having a top surface formed by the first layer and a bottom surface formed
by the third layer, the block having parallel opposed first and second side surfaces
and parallel opposed third and fourth side surfaces;

c) a first terminal located on the first side surface and having a first portion wrapping
10 around onto the top surface, the bottom surface, the third side surface and the
fourth side surface;

d) a second terminal located on the second side surface and having a second portion
wrapping around onto the top surface, the bottom surface, the third side surface and
the fourth side surface;

15 e) a third terminal located on the third side surface and wrapping around onto the top
and bottom surfaces;

f) a fourth terminal located on the fourth side surface and wrapping around onto the
top and bottom surfaces; and

g) a ground plane located between the second and third dielectric layers, the ground
20 plane having a length and a width, the length of the ground plane being less than a
distance between the first and second portions.

2. The filter according to claim 1, wherein the ground plane does not overlap the first and second portions.

5 3. The filter according to claim 1, wherein the width of the ground plane is less than a distance between the third and fourth side surfaces.

4. The filter according to claim 1, wherein the dielectric layers are ceramic.

10 5. The filter according to claim 1, wherein a via connects the ground plane to the third and fourth terminals.

6. The filter according to claim 1, wherein the ground plane improves isolation between the first and second terminals.

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7. A filter for filtering an electronic signal comprising:

- a) a dielectric block having a top surface, a bottom surface and a first, second, third and fourth side surfaces;
- b) a first terminal located on the first side surface and having a first portion extending
5 over the top surface, bottom surface, third side surface and fourth side surface;
- c) a second terminal located on the second side surface and having a second portion extending over the top surface, bottom surface, third side surface and fourth side surface;
- d) a third terminal located on the third side surface and partially extending over the top
10 and bottom surfaces;
- e) a fourth terminal located on the fourth side surface and partially extending over the top and bottom surfaces; and
- f) a ground plane located within the dielectric block, the ground plane having a length such that the ground plane does not overlap the first and second portions.

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8. The filter according to claim 7, wherein the length of the ground plane is less than the distance between the first portion and the second portion.

9. The filter according to claim 7, wherein a via connects the ground plane to the third
20 and fourth terminals.

10. The filter according to claim 7, wherein the dielectric block is ceramic.

11. The filter according to claim 7, wherein the dielectric block has a first layer, a second layer and a third layer.

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12. The filter according to claim 11, wherein the ground plane is located between the second and third layers.

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13. A filter for filtering an electronic signal comprising:

- a) a multi-layered dielectric block having a first, second, third, fourth, fifth and sixth surface, the block having a center portion;
- b) a first terminal located on the first side surface and having a first portion extending
5 onto the adjacent side surfaces toward the center portion;
- c) a second terminal located on the second side surface and having a second portion extending onto the adjacent side surfaces toward the center portion;
- d) a third terminal located on the third side surface at the center portion;
- e) a fourth terminal located on the fourth side surface at the center portion; and
- 10 f) a ground plane located within the dielectric block, the ground plane connected to the third and fourth terminals, the ground plane extending from the center portion toward but not to the first and second terminals.

14. The filter according to claim 13, wherein the ground plane has a length that is less
15 than the distance between the first portion and the second portion.

15. The filter according to claim 13, wherein the ground plane ground plane does not overlap the first and second portions of the first and second terminals.

20 16. The filter according to claim 13, wherein a via connects the ground plane to the third and fourth terminals.

17. The filter according to claim 13, wherein the dielectric block is ceramic.

18. The filter according to claim 13, wherein the multi-layered dielectric block has a

5 first layer, a second layer and a third layer.

19. The filter according to claim 18, wherein the ground plane is located between the second and third layers.

10 21. The filter according to claim 18, wherein the via extends between the fifth and sixth surfaces.

21. The filter according to claim 13, wherein the third and fourth terminals extend onto the fifth and sixth surfaces.

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22. The filter according to claim 13, wherein the ground plane improves isolation between the first and second terminals.